

FIG. 1

			t		t+1		t+2		t+3	
d Delivery center			S	E	S	E	S	E	S	E
	Expected shipment quantity	ES	0		150		173		154	
	Shipment quantity	SP	0		80		0		0	
	Actual inventory	AIS, AIE	0	0	300	220	415	415	457	457
	Standard inventory	SI	300		300		345		307	
f Factories	Shipment quantity	SP	300		195		42		0	
	Actual inventory	AIS, AIE	0	150	150	150	150	173	173	173
	Standard inventory	SI	150		150		173		154	
	Expected assembly	EA	300		195		135		164	
	Adjustment assembly	AA	150		0		-70		-183	
	Total assembly quantity	TA	450		195		65		0	

FIG. 2

FIG. 3

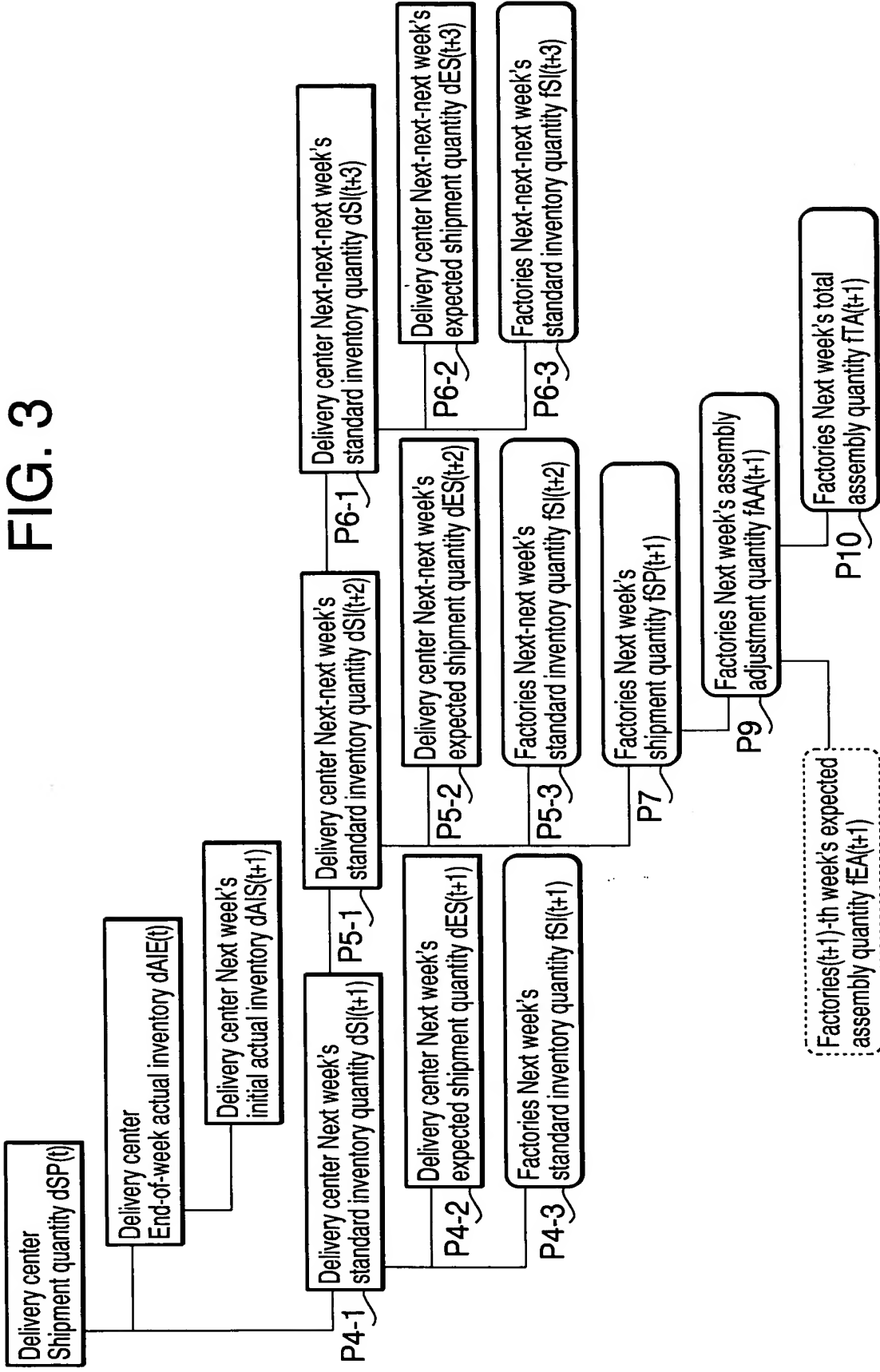


FIG. 4

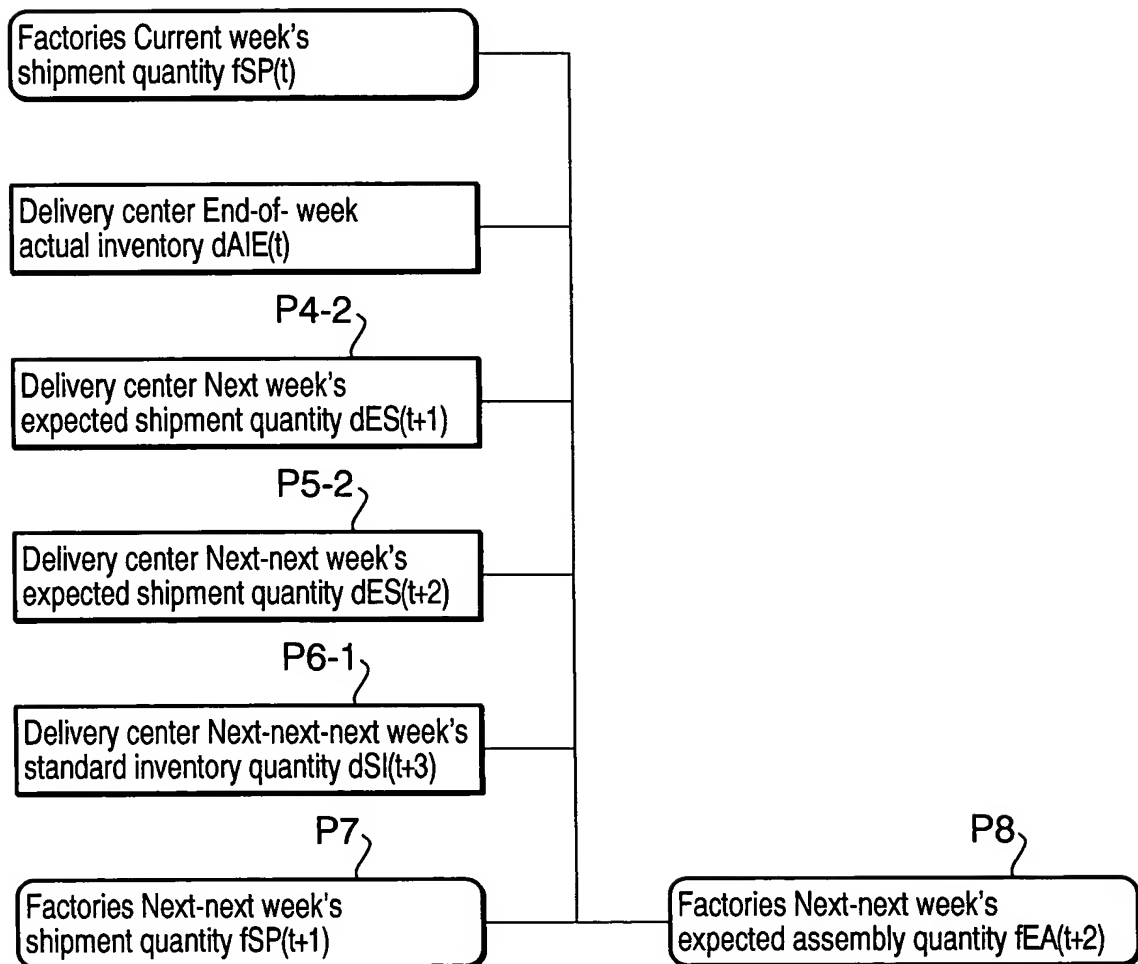


FIG. 5

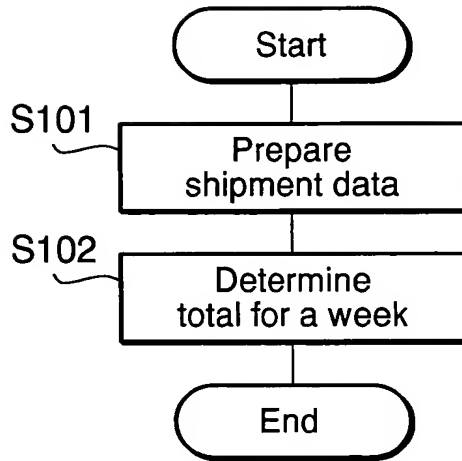


FIG. 6

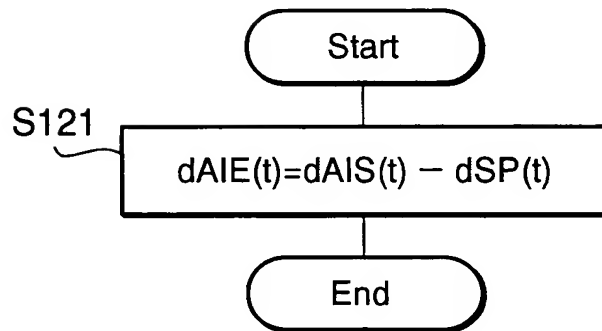


FIG. 7

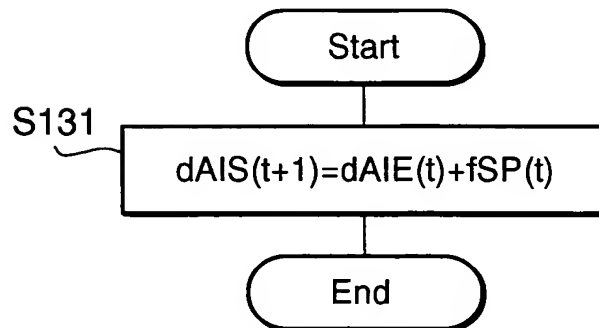


FIG. 8

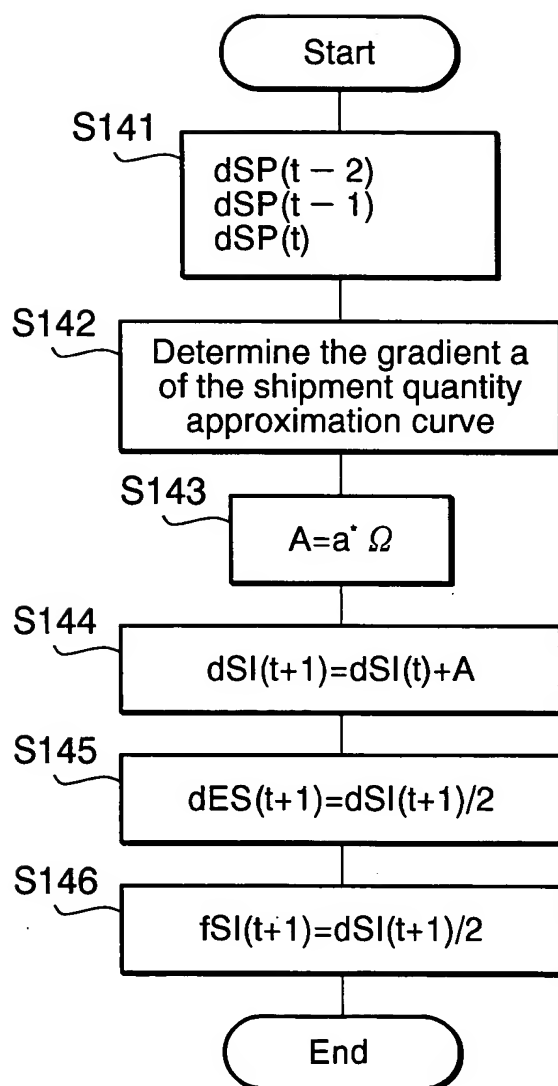


FIG. 9

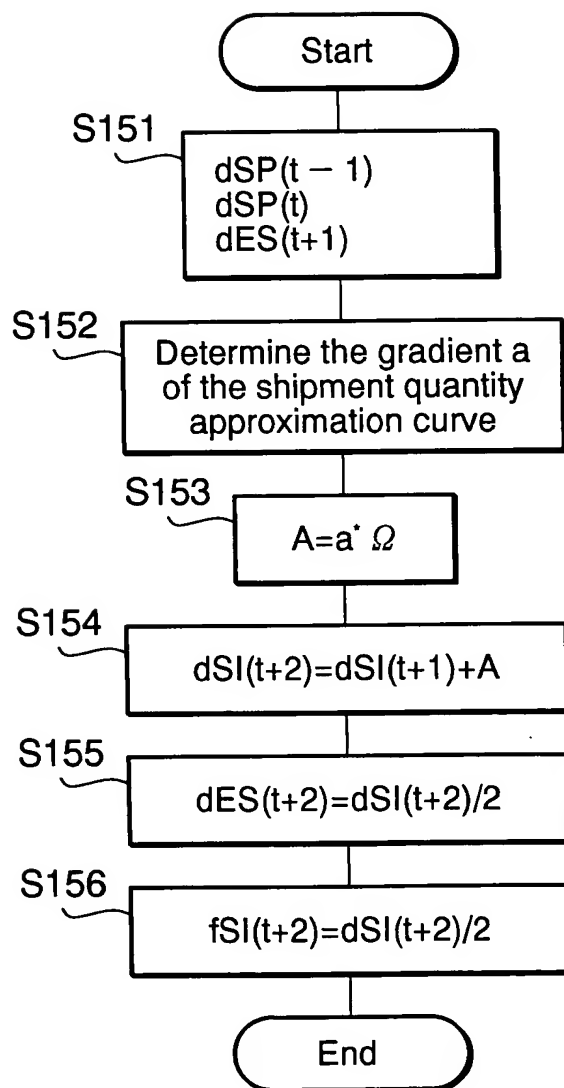


FIG.10

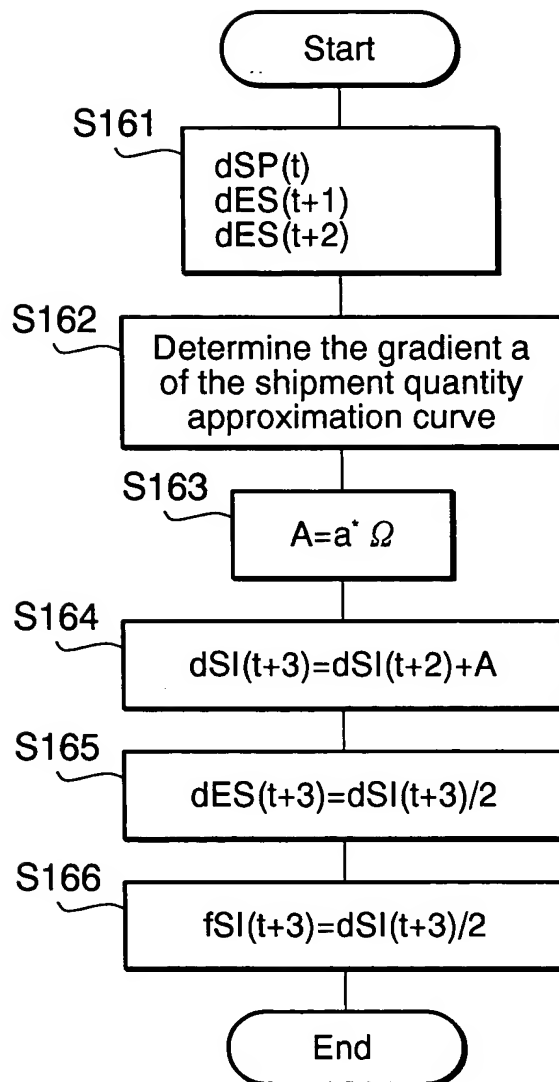


FIG.11

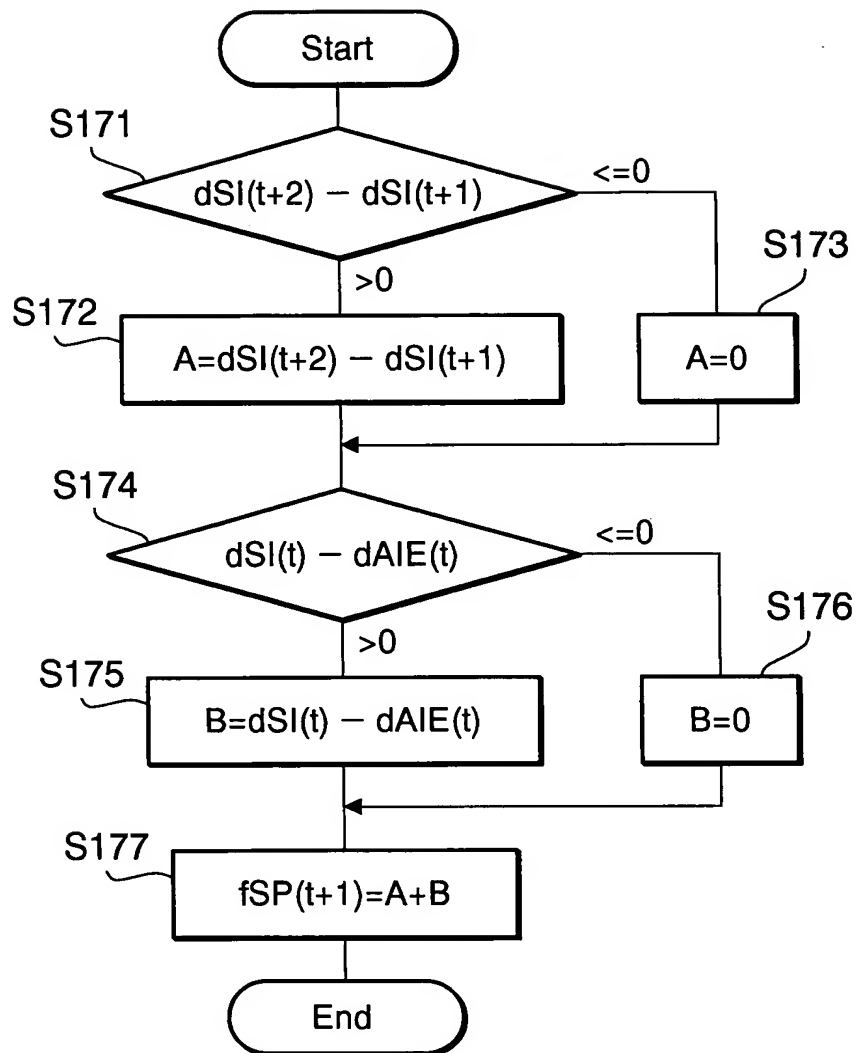


FIG.12

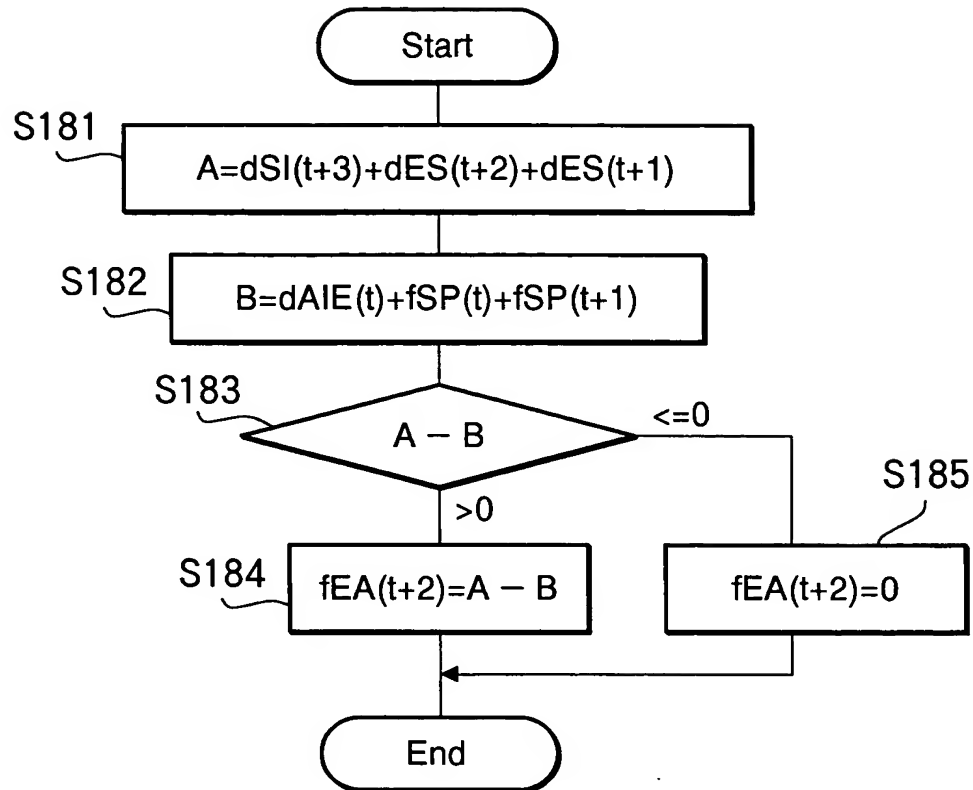


FIG.13

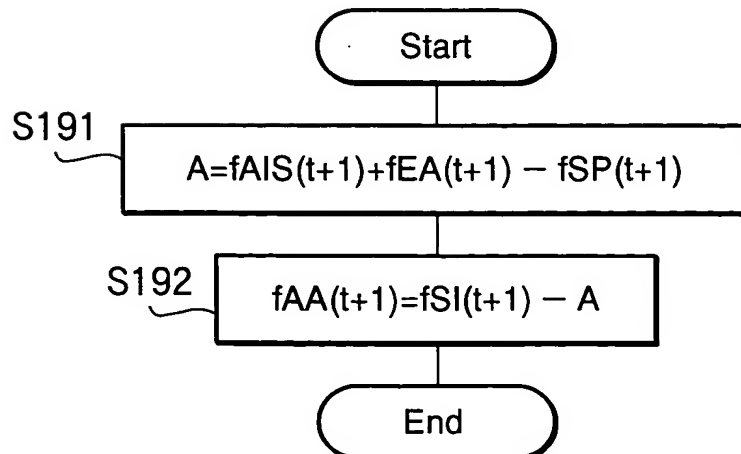


FIG.14

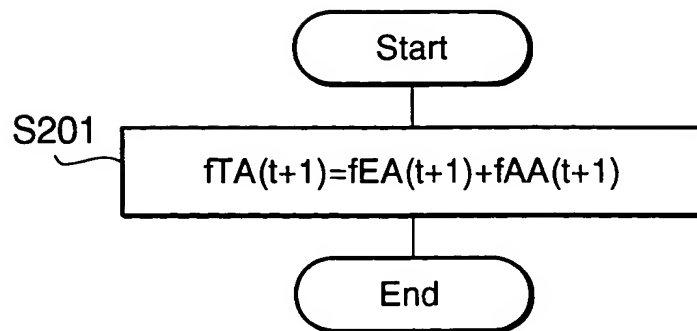


FIG.15

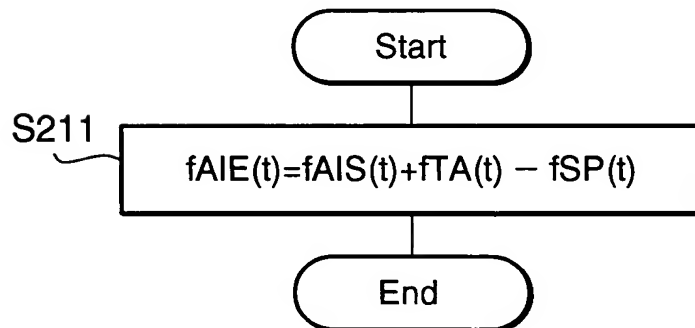
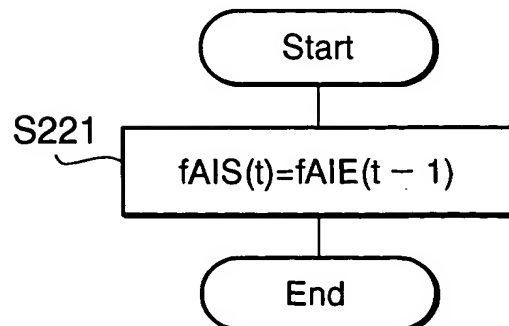


FIG.16



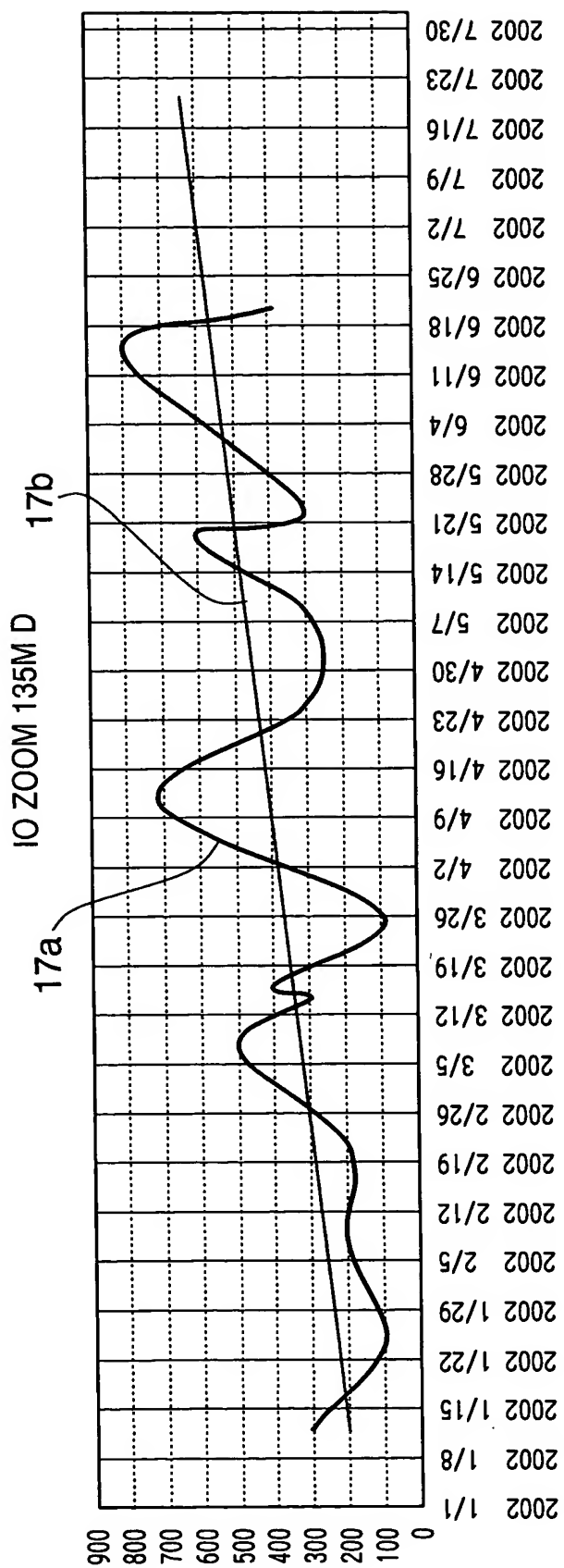


FIG.17

FIG.18

None-fluctuating standard inventory quantity case

			0			t			t+1			t+2			t+3			t+4			t+5		
d Delivery center			S	E		S	E		S	E		S	E		S	E		S	E		S	E	
	Expected shipment quantity	ES	0			500			500			500			500			500			500		
	Shipment quantity	SP	0			650			650			650			650			650					
	Actual inventory	AIS, AIE	0	0	0	1000	350		850	200		850	200		1000	350		1150	500		1150	500	
	Standard inventory quantity	SI	1000			1000			1000			1000			1000			1000					
f Factories	Shipment quantity	SP	1000			500			650			800			800			650			500		
	Actual inventory	AIS, AIE	0	500		500	500		500	500		500	500		500	500		500	500		500	500	
	Standard inventory quantity	SI	500			500			500			500			500			500			500		
	Expected assembly quantity	EA	1500			650			650			500			350			200			200		
	Adjustment assembly quantity	AA	0			-150			0			300			450			450			300		
	Total assembly quantity	TA	1500			500			650			800			800			650			500		

FIG.19

Increasing standard inventory quantity case

			0			t			t+1			t+2			t+3			t+4			t+5		
d Delivery center			S	E		S	E		S	E		S	E		S	E		S	E		S	E	
	Expected shipment quantity	ES	0			550			600			650			700			750			800		
	Shipment quantity	SP	0			715			780			845			910			975			1040		
	Actual inventory	AIS, AIE	0	0	0	1100	385	1035	255	1070	225	1270	360	1535	560	1700	660						
	Standard inventory quantity	SI	1100			1100			1200			1300			1400			1500			1600		
f Factories	Shipment quantity	SP	1100			650			815			1045			1175			1140			1040		
	Actual inventory	AIS, AIE	0	500	0	500	550	550	600	600	650	650	700	700	750	750	800						
	Standard inventory quantity	SI	500			550			600			650			700			750			800		
	Expected assembly quantity	EA	1500			815			865			800			735			605			575		
	Adjustment assembly quantity	AA	100			-115			0			295			490			585			515		
	Total assembly quantity	TA	1600			700			865			1095			1225			1190			1090		

FIG.20

Decreasing standard inventory quantity case

			0			t			t+1			t+2			t+3			t+4			t+5		
d Delivery center			S	E		S	E		S	E		S	E		S	E		S	E		S	E	
	Expected shipment quantity	ES	0			1400			1300			1200			1100			1000			900		
	Shipment quantity	SP	0			1820			1690			1560			1430			1300			1170		
	Actual inventory	AIS, AIE	0	0	0	2800	980	2180	490	2110	550	2460	1030	2680	1380	2350	1180						
	Standard inventory quantity	SI	2800			2800			2600			2400			2200			2000			1800		
f Factories	Shipment quantity	SP	2800			1200			1620			1910			1650			970			420		
	Actual inventory	AIS, AIE	0	1500	1400	1500	1400	1400	1300	1300	1200	1300	1200	1200	1100	1100	1000	1000	900				
	Standard inventory quantity	SI	1500			1400			1300			1200			1100			1000			900		
	Expected assembly quantity	EA	1500			1620			1520			900			280			0			0		
	Adjustment assembly quantity	AA	2800			-520			0			910			1270			870			320		
	Total assembly quantity	TA	4300			1100			1520			1810			1550			870			320		

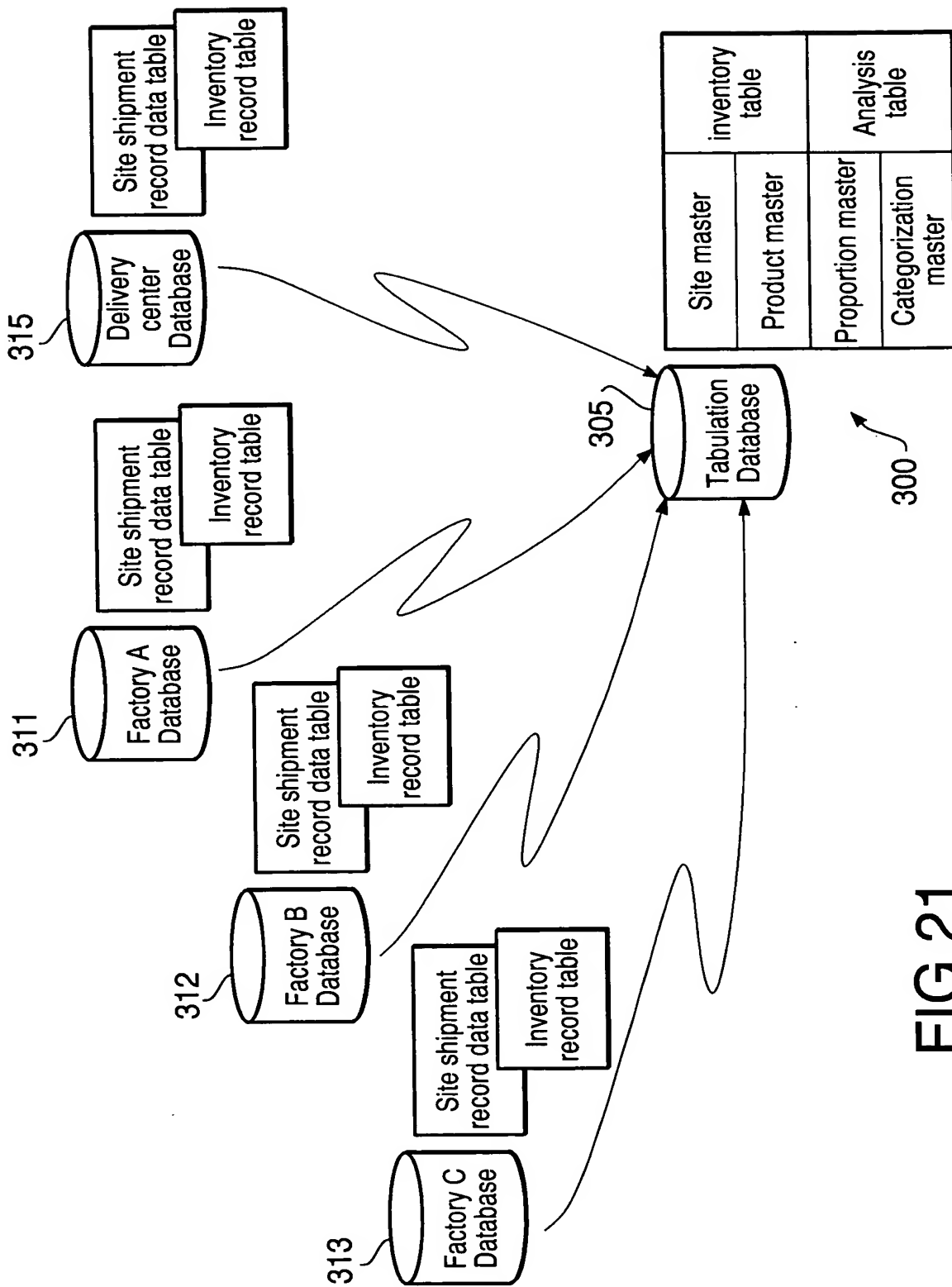


FIG.21

FIG.22

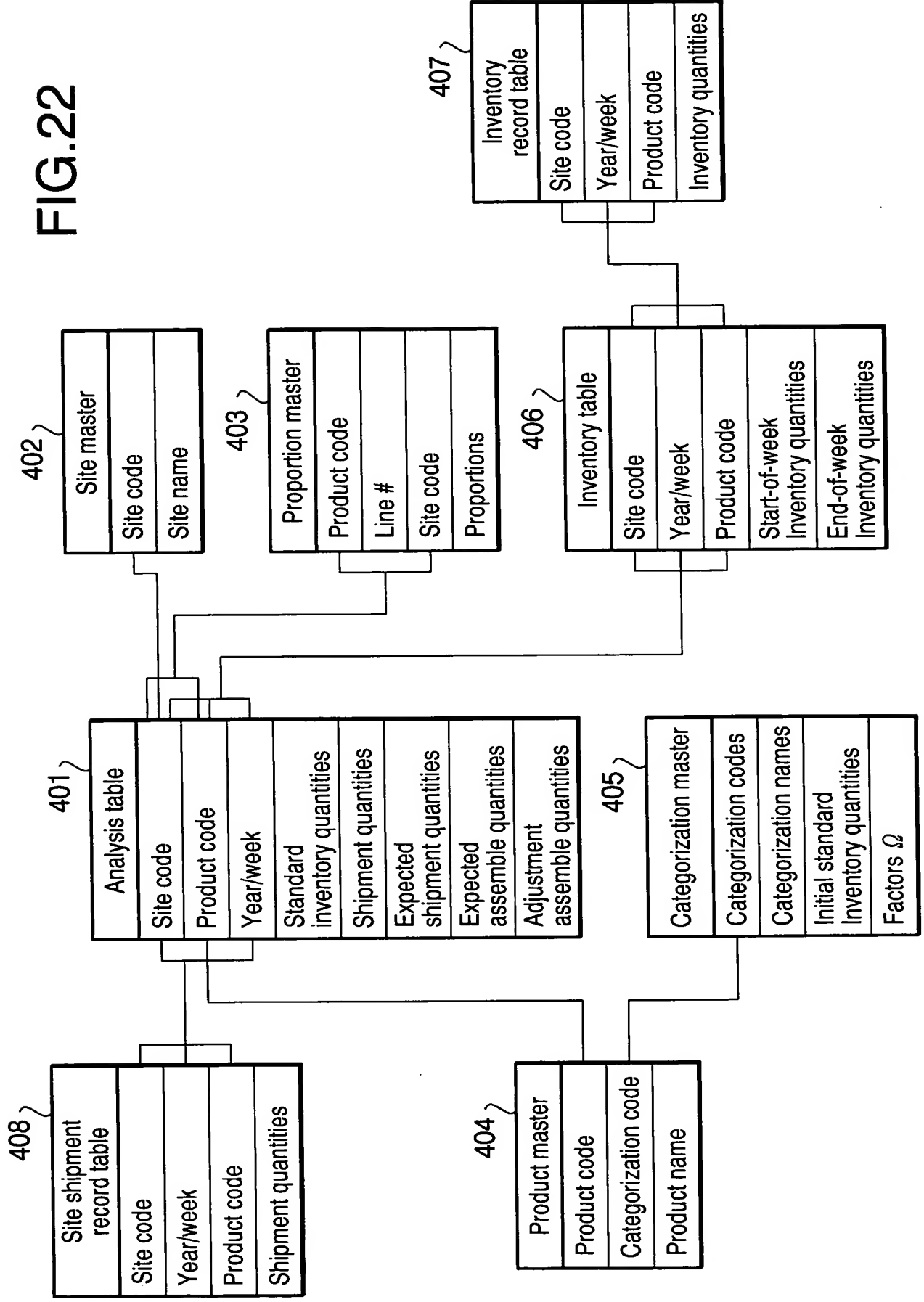


FIG.23

10460

			1		2		3		4	
d Delivery center			S	E	S	E	S	E	S	E
	Expected shipment quantity	ES	0		750		1313		1172	
	Shipment quantity	SP	0		350		0		0	
	Actual inventory	AIS, AIE	0	0	1500	1150	1675	1675	1689	1689
	Standard inventory	SI	1500		1500		2625		2344	
f Factory A 2	Shipment quantity	SP	300		525		14		0	
	Actual inventory	AIS, AIE	0	150	150	150	150	263	263	263
	Standard inventory	SI	150		150		263		234	
	Expected assembly	EA	300		615		716		417	
	Adjustment assembly	AA	150		-90		-589		-446	
	Total assembly quantity	TA	450		525		127		0	
f Factory B 8	Shipment quantity	SP	1200		2100		55		0	
	Actual inventory	AIS, AIE	0	600	600	600	600	1050	1050	1050
	Standard inventory	SI	600		600		1050		938	
	Expected assembly	EA	1200		2460		2866		1667	
	Adjustment assembly	AA	600		-360		-2361		-1779	
	Total assembly quantity	TA	1800		2100		505		0	

Site shipment record table

Site code	Year/week	Product code	Shipment quantities
18021	200202	1369	195
19000	200202	1369	80
18021	200202	10460	525
18031	200202	10460	2100
18031	200202	27697	38
19000	200202	10460	350
19000	200202	27697	10

408

Site master

Site code	Site name
19000	Delivery center
18001	Factory C
18021	Factory A
18031	Factory B

402

FIG.24

Propotion master

Product code	Line #	Site code	Proportions
1369	1	18021	10
10460	1	18021	2
10460	2	18031	8
27697	1	18031	10

403

Inventory table

Site code	Product code	Year/week	Start-of-week Inventory quantities	End-of-week Inventory quantities
18021	1369	200201	0	150
18021	1369	200202	150	150
18021	1369	200203	150	173
19000	1369	200201	0	0
19000	1369	200202	300	220
19000	1369	200203	415	415
18031	27697	200201	0	25
18031	27697	200202	25	25
18031	27697	200203	25	32
19000	27697	200201	0	0
19000	27697	200202	50	40
19000	27697	200203	78	78
18021	10460	200201	0	150
18021	10460	200202	150	150
18021	10460	200203	150	263
18031	10460	200201	0	600
18031	10460	200202	600	600
18031	10460	200203	600	1050
19000	10460	200201	0	0
19000	10460	200202	1500	1500
19000	10460	200203	1675	1675

406

FIG.25

Product master

404

Product code	Categorization code	Product name
1369	100	SLR – B
10460	300	Compact zoom A
27697	500	Zoom lens 28 – 90mm

Categorization master

405

Categorization codes	Categorization names	Initial standard Inventory quantities	Factors Ω
100	Single-lens reflex camera	300	0.3
200	Compact camera	1000	1
300	Compact zoom camera	1500	1.5
400	Digital camera	2000	2
500	Lens	50	0.5

FIG.26

Analysis table

Analysis table								
Site code	Product code	Year/week	Standard inventory quantities	401		501		502
				Shipment quantities	Expected shipment quantities	Expected assembly quantities	Adjustment assembly quantities	
18021	1369	200201	150	300	0	300	150	
19000	1369	200201	300	0	0	0	0	
18021	1369	200202	150	195	0	195	0	
19000	1369	200202	300	0	150	0	0	
18021	1369	200203	173	0	0	135	-70	
19000	1369	200203	345	0	173	0	0	
18021	1369	200204	154	0	0	0	0	
19000	1369	200204	307	0	154	0	0	
18031	27697	200201	25	50	0	50	25	
19000	27697	200201	50	0	0	0	0	
18031	27697	200202	25	38	0	38	0	
19000	27697	200202	50	10	25	0	0	
18031	27697	200203	32	0	0	23	-15	
19000	27697	200203	63	0	32	0	0	
18031	27697	200204	27	0	0	0	0	
19000	27697	200204	54	0	27	0	0	
18021	10460	200201	150	300	0	300	150	
18031	10460	200201	600	1200	0	1200	600	
19000	10460	200201	1500	0	0	0	0	
18021	10460	200202	150	525	0	615	-90	
18031	10460	200202	600	2100	0	2460	-360	
19000	10460	200202	1500	350	750	0	0	
18021	10460	200203	263	0	0	716	-589	
18031	10460	200203	1050	0	0	2866	-2361	
19000	10460	200203	2625	0	1313	0	0	
18021	10460	200204	234	0	0	0	0	
18031	10460	200204	938	0	0	0	0	
19000	10460	200204	2344	0	1172	0	0	

FIG.27

